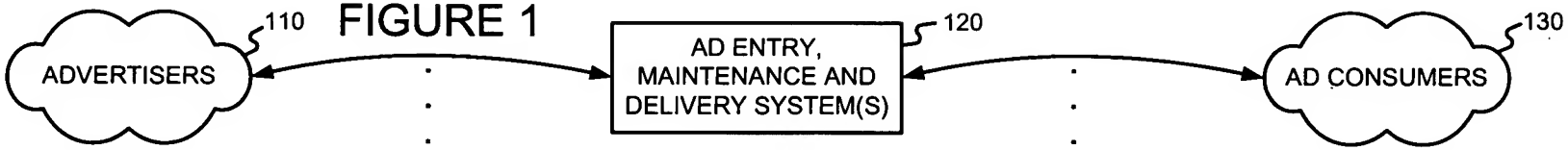


FIGURE 1

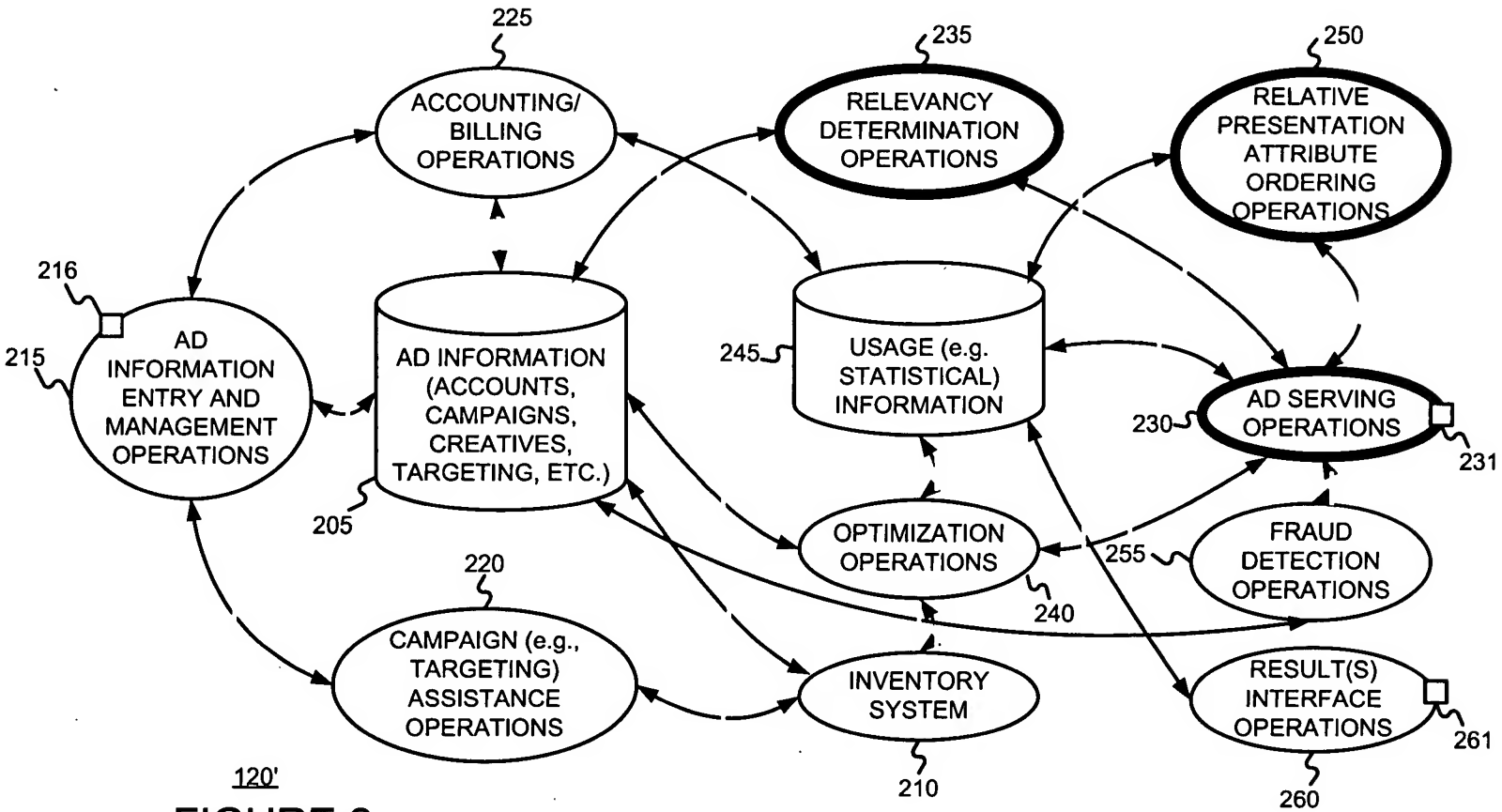


FIGURE 2

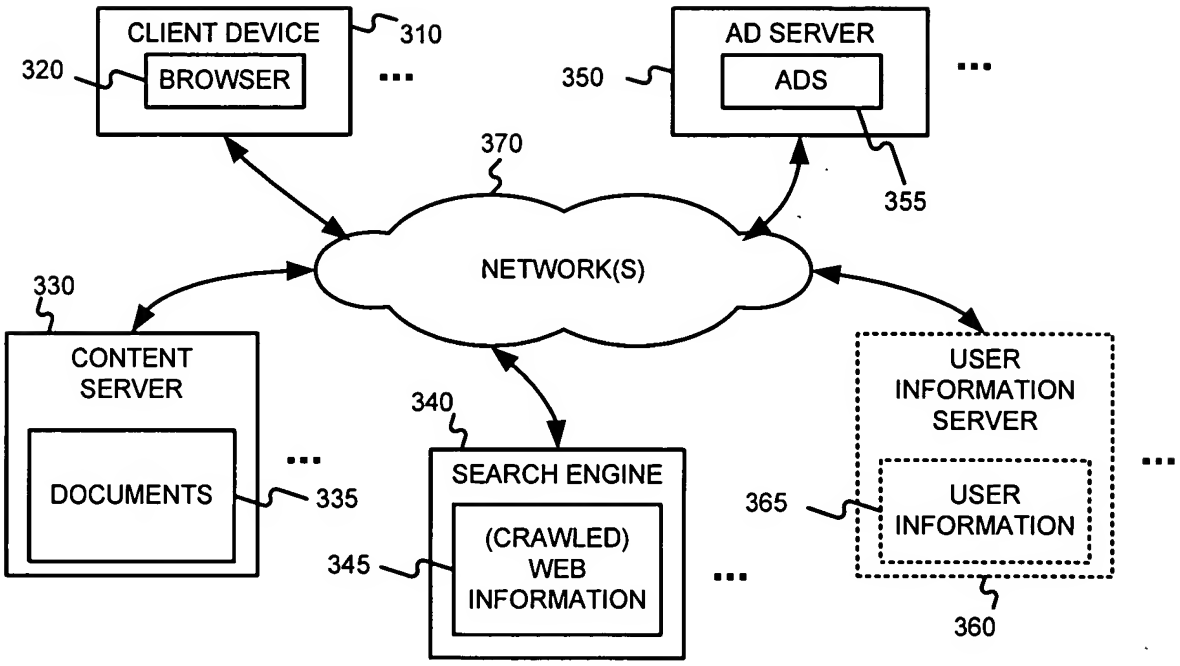

CLIENT DEVICE
310
320
BROWSER
AD SERVER
350
ADS
355
370
NETWORK(S)
330
CONTENT SERVER
DOCUMENTS
335
340
SEARCH ENGINE
(CRAWLED) WEB INFORMATION
345
USER INFORMATION SERVER
365
USER INFORMATION
360
300

FIGURE 3

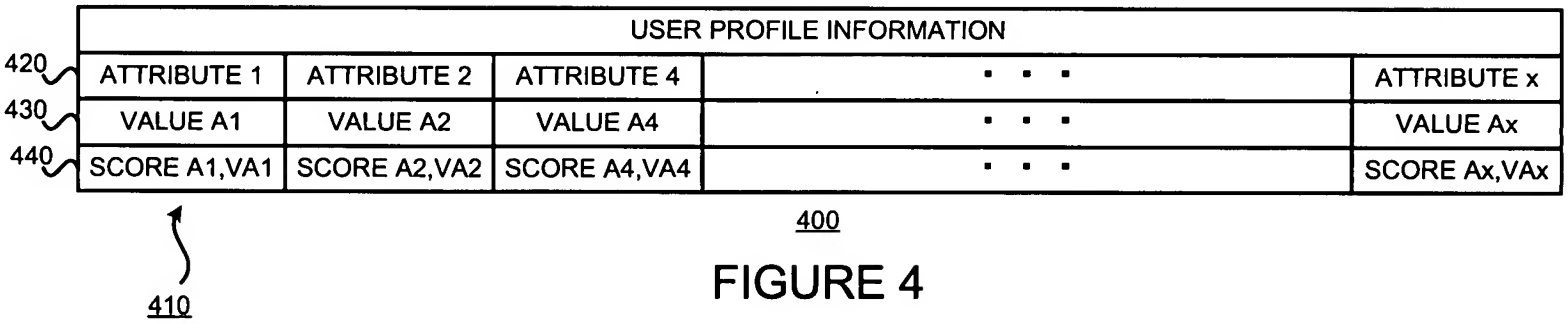
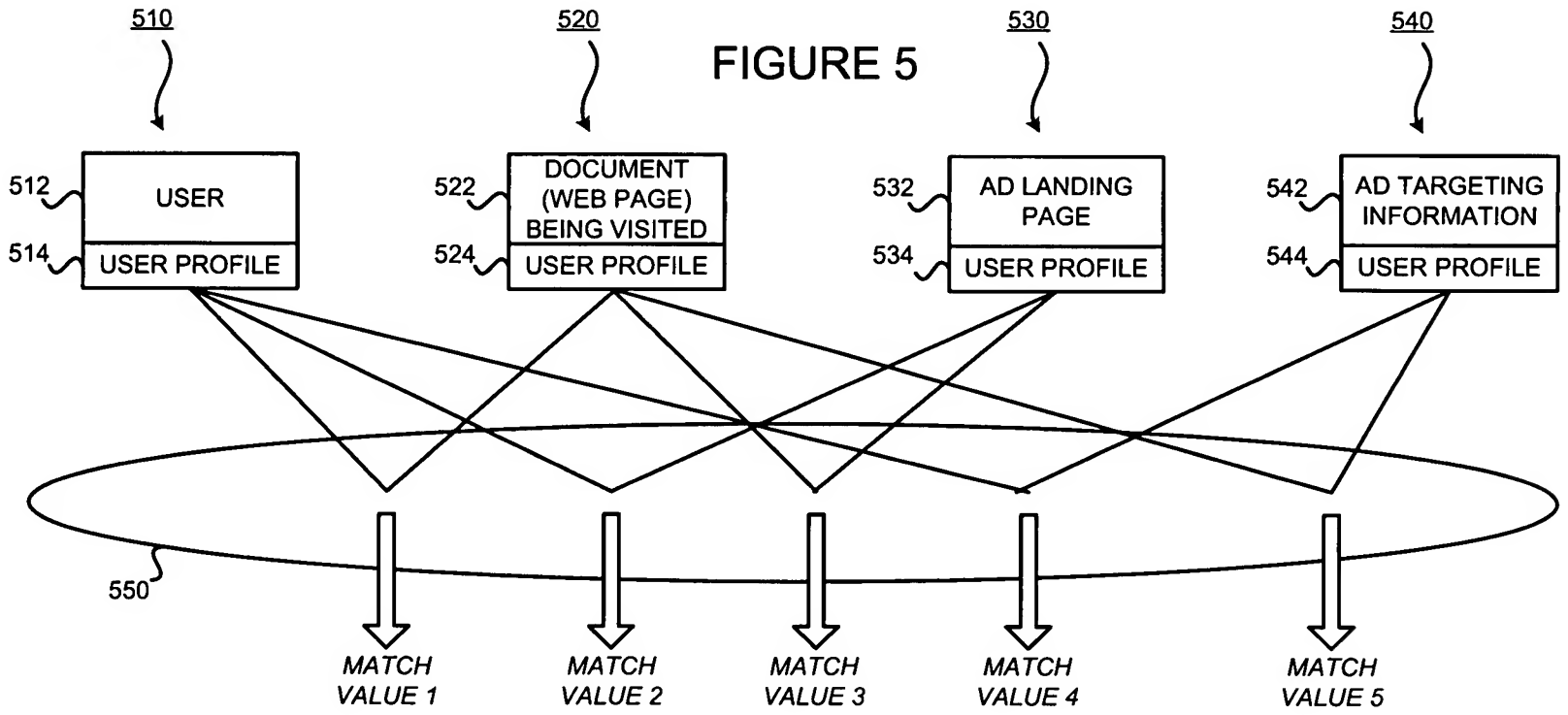


FIGURE 4

FIGURE 5



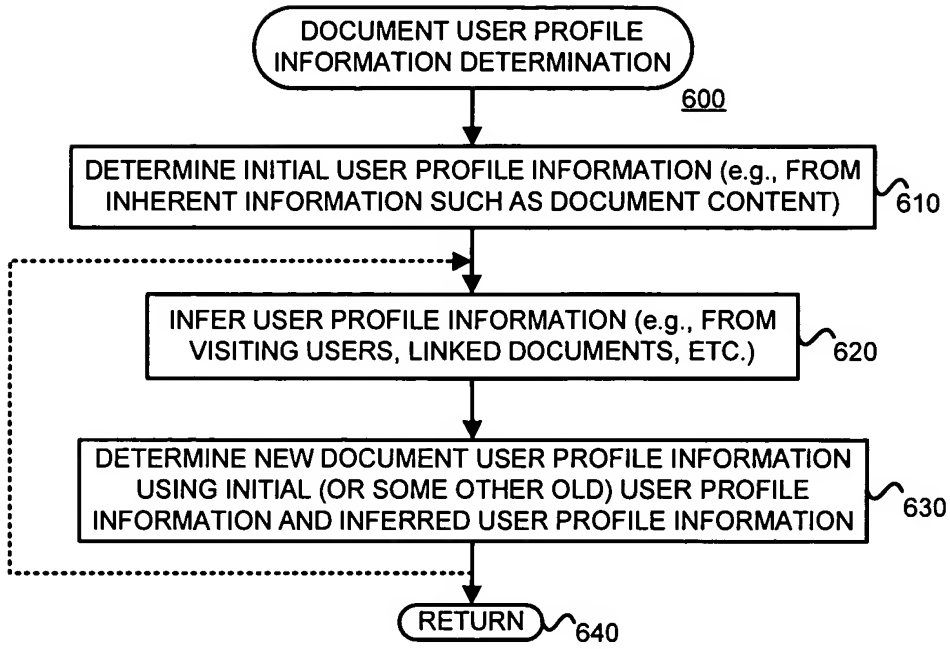


FIGURE 6

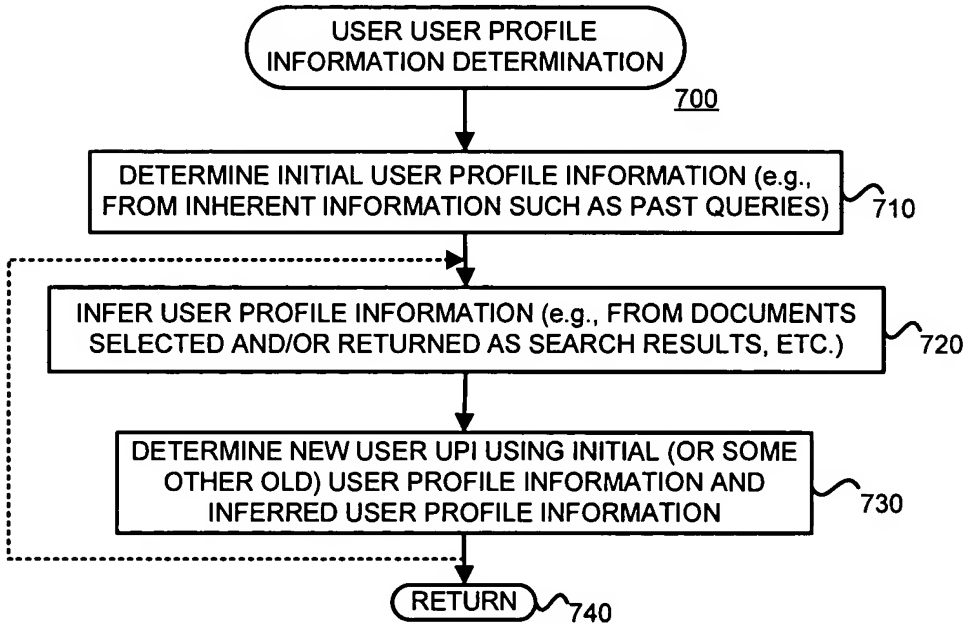


FIGURE 7

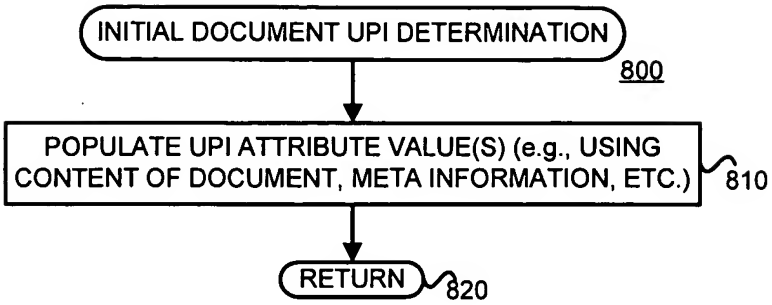


FIGURE 8

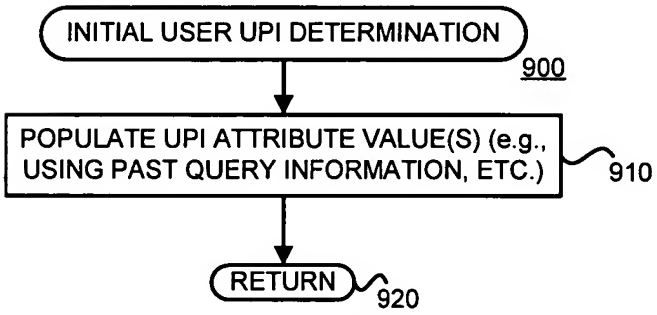


FIGURE 9

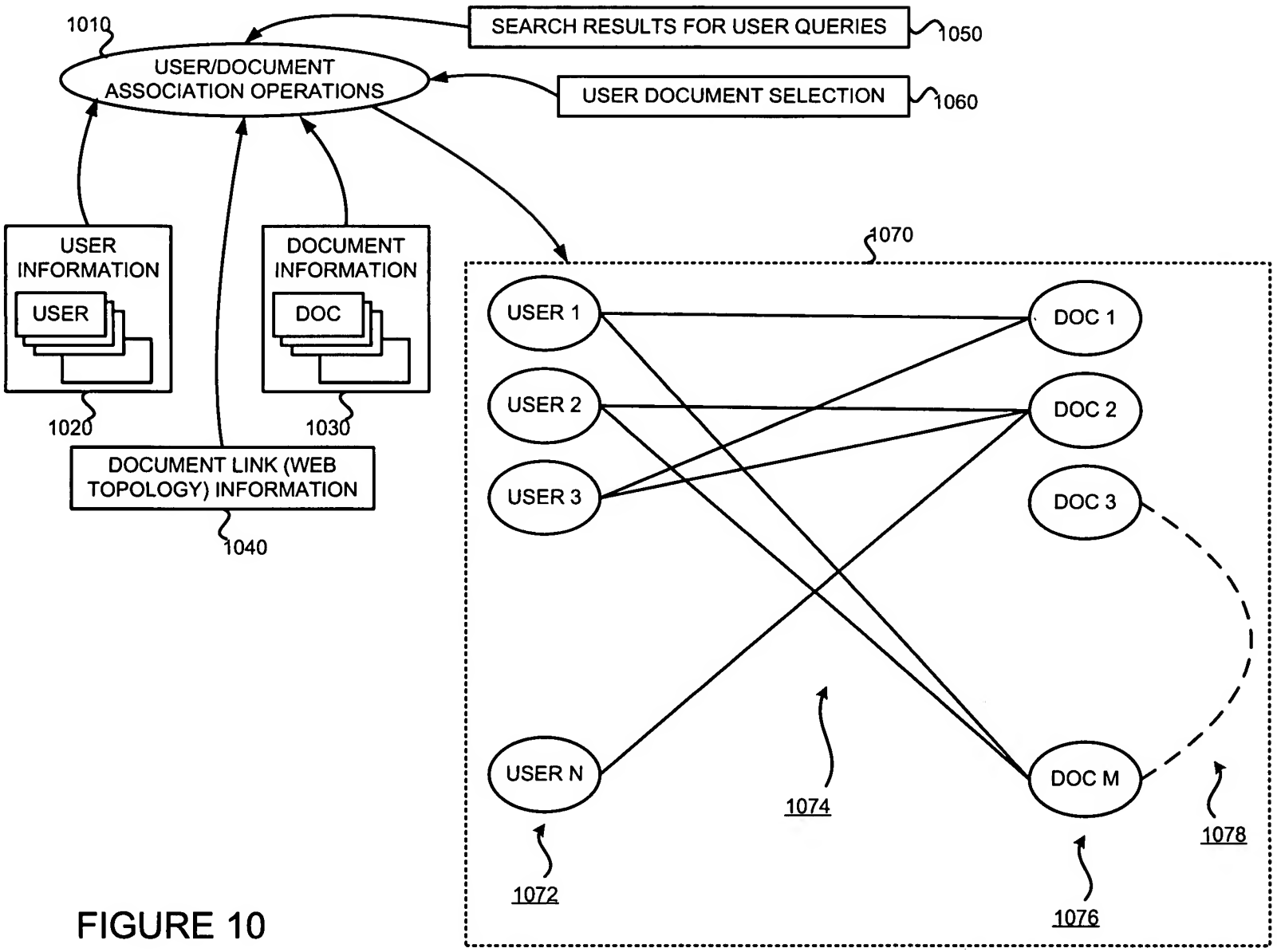

1010
USER/DOCUMENT ASSOCIATION OPERATIONS
SEARCH RESULTS FOR USER QUERIES
1050
USER DOCUMENT SELECTION
1060
USER INFORMATION
USER
1020
DOCUMENT INFORMATION
DOC
1030
DOCUMENT LINK (WEB TOPOLOGY) INFORMATION
1040
1070
USER 1
USER 2
USER 3
USER N
DOC 1
DOC 2
DOC 3
DOC M
1072
1074
1076
1078

FIGURE 10

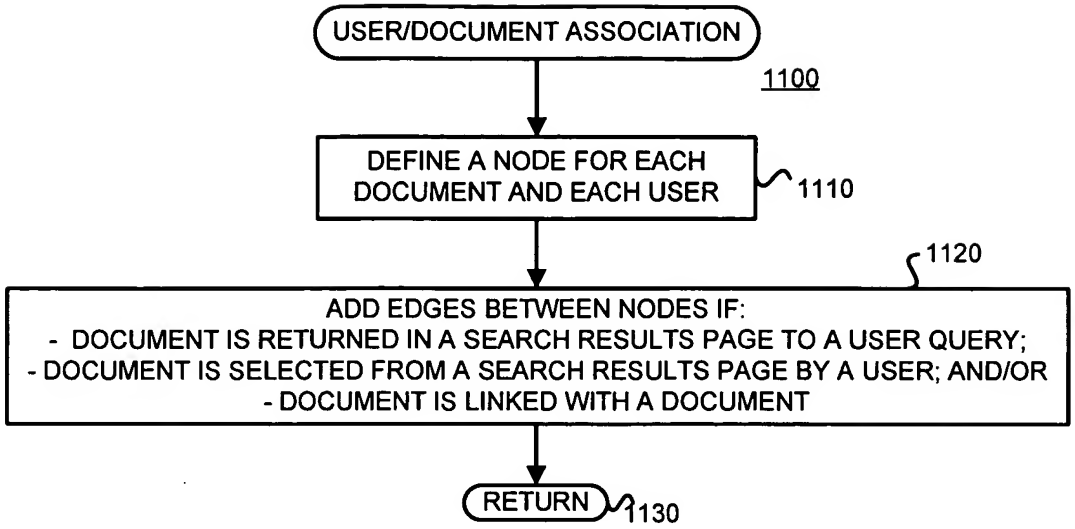


FIGURE 11

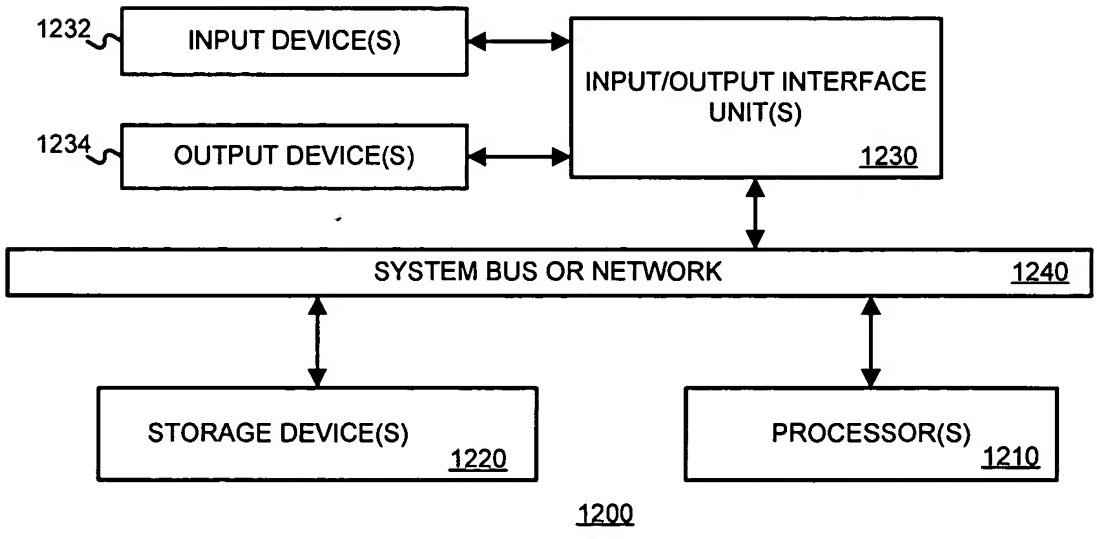


FIGURE 12